

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing:

22 February 2001 (22.02.01)

International application No.:

PCT/DK99/00437

Applicant's or agent's file reference:

59871/GW/AW

International filing date:

16 August 1999 (16.08.99)

Priority date:

Applicant:

JACOBSEN, Ole, Anders

1. The designated Office is hereby notified of its election made:



in the demand filed with the International preliminary Examining Authority on:

07 July 2000 (07.07.00)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was



was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer:

J. Zahra

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF WITHDRAWAL OF
INTERNATIONAL APPLICATION OR
DESIGNATIONS

(PCT Rule 90bis.1 and 90bis.2 and
Administrative Instructions, Section 415(a))

To:

BUDDE, SCHOU & OSTENFELD A/S
Vestergade 31
DK-1456 København K
DANEMARK

Date of mailing (day/month/year) 02 February 2000 (02.02.00)		
Applicant's or agent's file reference 59871/GW/AW		IMPORTANT NOTIFICATION
International application No. PCT/DK99/00437	International filing date (day/month/year) 16 August 1999 (16.08.99)	Priority date (day/month/year)
Applicant GEORG FISCHER DISA A/S		

1. The applicant is hereby notified that, except as to any designated State in which national processing or examination has already started upon the express request of the applicant:

- ☒ the international application
- ☐ the designations of the following States:
- ☐ for an ARIPO patent (specify "all States" or, if the withdrawal concerns only some States, specify those States only by indicating the two-letter country codes):
 - ☐ for a Eurasian patent
 - ☐ for a European patent (specify "all States" or, if the withdrawal concerns only some States, specify those States only by indicating the two-letter country codes):
 - ☐ for an OAPI patent
 - ☐ for a national patent (specify the States by indicating the two-letter country codes):

has (have) been withdrawn on the date of receipt of the notice effecting withdrawal as indicated below:

21 January 2000 (21.01.00).

2. The notice effecting withdrawal reached the International Bureau

- ☒ before the completion of the technical preparations for publication and, consequently, there will be no international publication:
- ☒ of the international application.
 - ☐ of the designations specified above.
- ☐ after the completion of the technical preparations for publication and, consequently, the withdrawal could not be taken into account for the international publication.

3. The receiving Office and, if they are affected by the withdrawal, the designated (or elected) Offices, the International Searching Authority and the International Preliminary Examining Authority, have been informed accordingly.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Eugénia Santos
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

COMMUNICATION IN CASES FOR WHICH
NO OTHER FORM IS APPLICABLE

To:

BUDDE, SCHOU & OSTENFELD A/S
Vestergade 31
DK-1456 København K
DANEMARK

Date of mailing (day/month/year) 10 February 2000 (10.02.00)	
Applicant's or agent's file reference 59871/GW/AW	REPLY DUE see paragraph 1 below
International application No. PCT/DK99/00437	International filing date (day/month/year) 16 August 1999 (16.08.99)
Applicant GEORG FISCHER DISA A/S	

1. ☐ REPLY DUE within _____ months/days from the above date of mailing
- ☐ NO REPLY DUE, however, see below
- ☒ IMPORTANT COMMUNICATION
- ☐ INFORMATION ONLY

2. COMMUNICATION:

Please consider form PCT/IB/307, unduly issued on 02 February 2000
(02.02.99), as *null and void*.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Eugénia Santos
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

To:

BUDDE, SCHOU & OSTENFELD A/S
Vester Søgade 10
DK-1601 København V
DANEMARK

Date of mailing (day/month/year)

12 novembre 2001 (12.11.01)

Applicant's or agent's file reference

59871/GW/AW

IMPORTANT NOTIFICATION

International application No.

PCT/DK99/00437

International filing date (day/month/year)

16 août 1999 (16.08.99)

1. The following indications appeared on record concerning:



the applicant



the inventor



the agent



the common representative

Name and Address

GEORG FISCHER DISA A/S
Herlev Hovedgade 17
DK-2730 Herlev
Denmark

State of Nationality

DK

State of Residence

DK

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:



the person



the name



the address



the nationality



the residence

Name and Address

DISA INDUSTRIES A/S
Herlev Hovedgade 17
DK-2730 Herlev
Denmark

State of Nationality

DK

State of Residence

DK

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:



the receiving Office



the designated Offices concerned



the International Searching Authority



the elected Offices concerned



the International Preliminary Examining Authority



other:

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

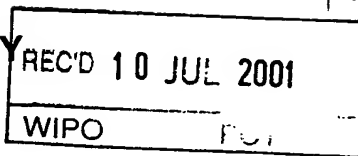
Authorized officer

Anne KARKACHI

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 59871/GW/AW	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DK99/00437	International filing date (day/month/year) 16/08/1999	Priority date (day/month/year) 16/08/1999
International Patent Classification (IPC) or national classification and IPC B22C11/10		
Applicant GEORG FISCHER DISA A/S et al.		



- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 07/07/2000	Date of completion of this report 06.07.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Patton, G Telephone No. +49 89 2399 2059 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/DK99/00437

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
Description, pages:

1-15 as originally filed

Claims, No.:

1-18 as originally filed

Drawings, sheets:

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/DK99/00437

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-18
	No:	Claims	

Inventive step (IS)	Yes:	Claims	1-18
	No:	Claims	

Industrial applicability (IA)	Yes:	Claims	1-18
	No:	Claims	

2. Citations and explanations
see separate sheet

PART V - Novelty and inventive step (Art. 33(2)-(3) PCT)

The document US-A-5 647 424(=D1), which is cited in the present application on page 1 and considered as the closest art, discloses a method of producing mould parts (5) on a string moulding apparatus comprising a moulding chamber (1) between a squeeze plate (2) and a pivoted squeeze plate (3) in which both the squeeze plate (2) and the pivoted squeeze plate (3) can move in a direction towards each other and a direction away from one another comprising the steps of introducing a compressible particulate moulding material in the moulding chamber (1) and then squeezing the moulding material (5) by moving the squeeze plate (2) and the pivoted squeeze plate (3) towards one another. D1 also discloses an apparatus for performing said process (see col. 1, l. 5-25; col. 2, l. 39 to col. 6, l. 23 and figures).

D1 does not disclose the features of the characterizing part of claims 1 and 9. Therefore, the subject-matter of claims 1 and 9 is novel (Art. 33(2) PCT).

The problem to be solved may be regarded as providing a process or an apparatus enabling low cycle time together with the extraction of the mould part from the moulding chamber after compaction without damage.

Since none of the available prior art discloses or renders obvious the distinguishing features so that the problem is solved, inventive step is also acknowledged for the subject-matter of claims 1 and 9 (Art. 33(3) PCT).

Since claims 2-8 and 10-18 depend on claims 1 and 9, respectively, they also satisfy the requirements of Article 33(2)-(3) PCT.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 59871/GW/AW	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/DK 99/ 00437	International filing date (day/month/year) 16/08/1999	(Earliest) Priority Date (day/month/year)
Applicant GEORG FISCHER DISA A/S et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 2 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

INDEPENDENT CONTROL OF SQUEEZE PLATE VELOCITY DURING FLASKLESS MOULDING

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1



None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DK 99/00437

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B22C11/10 B22C19/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B22C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 647 424 A (LARSEN JENS PETER ET AL) 15 July 1997 (1997-07-15) cited in the application claims 1-10; figures 1-3 ---	1-18
A	EP 0 020 082 A (DANSK IND SYNDIKAT) 10 December 1980 (1980-12-10) claims 1,2; figures 1,2 ---	1,9
A	WO 96 30140 A (GEORG FISCHER DISA AS ;LARSEN JENS PETER (DK); JESPERSEN EMIL (DK)) 3 October 1996 (1996-10-03) claims 1-11; figures 1-5 ---	1,9
A	US 4 791 974 A (LARSEN AAGE B) 20 December 1988 (1988-12-20) claims 1-11; figure 1 -----	1,9

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

12 April 2000

Date of mailing of the international search report

25/04/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Mailliard, A

INTERNATIONAL SEARCH REPORT

International Application No

Information on patent family members

PCT/DK 99/00437

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5647424	A	15-07-1997	DK 126694 A	02-05-1996
			DE 19540850 A	02-05-1996
			JP 2759433 B	28-05-1998
			JP 8206783 A	13-08-1996

EP 0020082	A	10-12-1980	DK 230479 A	02-12-1980
			AT 2725 T	15-03-1983
			CA 1138618 A	04-01-1983
			DD 151119 A	08-10-1981
			ES 492024 D	16-12-1980
			ES 8101949 A	01-04-1981
			JP 1163920 C	26-08-1983
			JP 55161548 A	16-12-1980
			JP 57060101 B	17-12-1982
			PL 224627 A	13-02-1981
			SU 1142003 A	23-02-1985
			US 4267878 A	19-05-1981
			ZA 8003059 A	27-05-1981

WO 9630140	A	03-10-1996	DK 34595 A	01-10-1996
			AU 5270396 A	16-10-1996
			CN 1179739 A,B	22-04-1998
			EP 0817690 A	14-01-1998
			JP 2955369 B	04-10-1999
			JP 10510217 T	06-10-1998

US 4791974	A	20-12-1988	NONE	

INTERNATIONAL SEARCH REPORT

International Application No
PCT/DK 99/00437

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B22C11/10 B22C19/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B22C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 647 424 A (LARSEN JENS PETER ET AL) 15 July 1997 (1997-07-15) cited in the application claims 1-10; figures 1-3	1-18
A	EP 0 020 082 A (DANSK IND SYNDIKAT) 10 December 1980 (1980-12-10) claims 1,2; figures 1,2	1,9
A	WO 96 30140 A (GEORG FISCHER DISA AS ;LARSEN JENS PETER (DK); JESPERSEN EMIL (DK)) 3 October 1996 (1996-10-03) claims 1-11; figures 1-5	1,9
A	US 4 791 974 A (LARSEN AAGE B) 20 December 1988 (1988-12-20) claims 1-11; figure 1	1,9

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

12 April 2000

Date of mailing of the international search report

25/04/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Mailliard, A

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No

PCT/DK 99/00437

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5647424	A	15-07-1997	DK 126694 A	02-05-1996
			DE 19540850 A	02-05-1996
			JP 2759433 B	28-05-1998
			JP 8206783 A	13-08-1996
EP 0020082	A	10-12-1980	DK 230479 A	02-12-1980
			AT 2725 T	15-03-1983
			CA 1138618 A	04-01-1983
			DD 151119 A	08-10-1981
			ES 492024 D	16-12-1980
			ES 8101949 A	01-04-1981
			JP 1163920 C	26-08-1983
			JP 55161548 A	16-12-1980
			JP 57060101 B	17-12-1982
			PL 224627 A	13-02-1981
			SU 1142003 A	23-02-1985
			US 4267878 A	19-05-1981
			ZA 8003059 A	27-05-1981
WO 9630140	A	03-10-1996	DK 34595 A	01-10-1996
			AU 5270396 A	16-10-1996
			CN 1179739 A, B	22-04-1998
			EP 0817690 A	14-01-1998
			JP 2955369 B	04-10-1999
			JP 10510217 T	06-10-1998
US 4791974	A	20-12-1988	NONE	